AMENDMENTS TO THE CLAIMS

1. (Previously Presented)   A method comprising:

receiving an input for selecting a first graphical object in an executable block diagram representing a system, the first graphical object having one or more properties;

displaying a list of one or more transformation operations performable on the first graphical object for transforming the first graphical object into a second graphical object for the executable block diagram;

receiving an input for selecting one of the one or more transformation operations; and

applying the selected one of the one or more transformation operations on the first graphical object for creating the second graphical object, the second graphical object having one or more properties that are different from the one or more properties of the first graphical object.

2. (Previously Presented)   The method of claim 1, wherein the list is displayed in one of a context menu, a toolbar or a roll-up menu.

3. (Previously Presented)   The method of claim 1, wherein the first graphical object is selected by moving a pointer over the first graphical object.

4. (Canceled)

5. (Canceled)

6. (Previously Presented)   The method of claim 1, wherein the second graphical object is created in the executable block diagram.

7. (Previously Presented)   The method of claim 1, wherein the second graphical object has a class that is different from a class of the first graphical object.

8. (Previously Presented)   The method of claim 1, wherein the second graphical object is an instance of a superclass of the first graphical object.

9. (Previously Presented)   The method of claim 1, wherein the second graphical object is an instance of a subclass of the first graphical object.

10. (Previously Presented)   The method of claim 1, wherein the second graphical object shares a base class with the first graphical object.

11. (Canceled)

12. (Previously Presented)   The method of claim 1, wherein the selected transformation operation is a copy and morph operation.

13. (Previously Presented)   The method of claim 1, wherein the second graphical object is a signal tap block for tapping a signal from the first graphical object.

14. (Previously Presented)   The method of claim 13, wherein the first graphical object is a block having an output that represents the signal.

15. (Previously Presented)   The method of claim 13, wherein the first graphical object is a line representing the signal.

16. (Previously Presented)   The method of claim 1, wherein the first graphical object and the second graphical object are functionally related blocks.

17. (Previously Presented)   The method of claim 1, wherein the first graphical object and the second graphical object are one of source blocks or sink blocks.

18. (Previously Presented)   The method of claim 1, wherein the second graphical object is an inverse graphical object of the first graphical object.

19. (Previously Presented)   The method of claim 1, wherein one of the second graphical objector the first graphical object is a bus creator block and the other of the second graphical object and the first graphical object is a bus selector block.

20. (Canceled)

21. (Previously Presented)   The method of claim 1, wherein the second graphical object has one or more implicit links to the first graphical object.

22. (Canceled)

23. (Previously Presented)   The method of claim 1, further comprising:
        executing a customized transformation operation.

24. (Previously Presented)   A method comprising :
        receiving an input for selecting a first graphical object in an executable block diagram representing a system, the first graphical object having one or more properties;
        displaying a list of one or more transformation operations performable on the first graphical object;
        receiving an input for selecting a transformation operation in the list; and
        based on the selected transformation operation, executing a copy and morph operation on the first graphical object to create a second graphical object for the executable block diagram, the second graphical object having one or more properties that are different from the one or more properties of the first graphical object.

25. (Previously Presented)   The method of claim 24, wherein the first graphical object outputs a signal, and wherein executing the copy and morph operation further comprises:
        creating a signal tap block for tapping the signal.

26. (Previously Presented)   The method of claim 24, wherein the first graphical object is a line representing a signal, and wherein executing the copy and morph operation further comprises:
        creating a signal tap block for tapping the signal.

27. (Previously Presented)   The method of claim 24, wherein the first graphical object and the second graphical object are functionally related blocks.

28. (Previously Presented)   The method of claim 24, wherein the first graphical object and the second graphical object are source blocks.

29. (Previously Presented)   The method of claim 24, wherein the second graphical object is an inverse graphical object of the first graphical object.

30. (Previously Presented)   The method of claim 24, wherein one of the second graphical object or the first graphical object is a bus creator block and the other of the second graphical object and the first graphical object is a bus selector block.

31. (Canceled)

32. (Previously Presented)   The method of claim 24, wherein the list is displayed in one of a context menu, a toolbar or a roll-up menu.

33. (Previously Presented)   The method of claim 24, further comprising:
        receiving a command associated with the copy and morph operation.

34. (Previously Presented)   The method of claim 33, wherein the command is received from a command line mechanism.

35. (Canceled)

36. (Canceled)

37. (Previously Presented)   A method comprising:
        receiving an input for selecting a graphical object in an executable block diagram representing a system, the selected graphical object having one or more properties;
        displaying a list of one or more transformation operations performable on the selected graphical object;
`   receiving an input for selecting a transformation operation from the list; and

based on the selected transformation operation, executing a morph operation on the selected graphical object to change one or more properties of the selected graphical object.

38. (Previously Presented)   The method of claim 37, wherein executing the morph operation further comprises:

morphing the selected graphical object to a signal tap block for tapping a signal.

39. (Previously Presented)   The method of claim 37, wherein executing the morph operation further comprises;

morphing the selected graphical object into a functionally related graphical object.

40. (Previously Presented)   The method of claim 37, wherein executing the morph operation further comprises:

morphing the selected graphical object into an inverse graphical object.

41. (Previously Presented)   The method of claim 40, wherein one of the inverse graphical object or the selected graphical object is a bus creator block and the other of the inverse graphical object and the selected graphical object is a bus selector block.

42. (Canceled)

43. (Previously Presented)   The method of claim 37, wherein the list is displayed in one of a context menu, a toolbar or a roll-up menu.

44. (Previously Presented)   The method of claim 37, further comprising:

receiving a command associated with the morph operation.

45. (Previously Presented)   The method of claim 44, wherein the command is received from a command line mechanism.

46. (Canceled)

47. (Canceled)

48. (Previously Presented)   A computer-readable medium holding computer-executable instructions, the medium comprising:

    one or more instructions for receiving an input for selecting a first graphical object in an executable block diagram representing a system, the first graphical object having one or more properties;

    one or more instructions for displaying a list of one or more transformation operations performable on the first graphical object for transforming the first graphical object into a second graphical object for the executable block diagram;

    one or more instructions for receiving an input for selecting one of the one or more transformation operations; and

    one or more instructions for applying the selected one of the one or more transformation operations on the first graphical object for creating the second graphical object, the second graphical object having one or more properties that are different from the one or more properties of the first graphical object.

49. (Previously Presented)   The medium of claim 48, further comprising:

    one or more instructions for receiving an input for selecting a transformation operation from the list; and

    one or more instructions for executing the selected transformation operation on the first graphical object to create the second graphical object.

50. (Previously Presented)   A computer-readable medium holding computer-executable instructions, the medium comprising:

    one or more instructions for receiving an input for selecting a first graphical object in an executable block diagram representing a system, the first graphical object having one or more properties;

    one or more instructions for displaying a list of one or more transformation operations performable on the first graphical object;

    one or more instructions for receiving an input for selecting a transformation operation in the list; and

one or more instructions for, based on the selected transformation operation, executing a copy and morph operation on the first graphical object to create a second graphical object for the executable block diagram, the second graphical object having one or more properties that are different from the one or more properties of the first graphical object.

51. (Previously Presented)   A computer readable medium holding computer-executable instructions, the medium comprising:

one or more instructions for receiving an input for selecting a graphical object in an executable block diagram representing a system, the selected graphical object having one or more properties;

one or more instructions for displaying a list of one or more transformation operations performable on the selected graphical object;

one or more instructions for receiving an input for selecting a transformation operation from the list; and

one or more instructions for, based on the selected transformation operation, executing a morph operation on the selected graphical object to change one or more properties of the selected graphical object for the executable block diagram.

52. (Previously Presented)   A system comprising:

input means for inputting data to a modeling application;

a display device for displaying an executable block diagram representing a system, the executable block diagram containing a first graphical object, the first graphical object having one or more properties;

receiving means for receiving an input for selecting the first graphical object in the executable block diagram; and

an electronic device including memory for storing computer program instructions and data, and a processor for executing the stored computer program instructions, the computer program instructions including:

instructions for displaying a list of one or more transformation operations performable on the first graphical object for transforming the first graphical object into a second graphical object for the executable block diagram, and

instructions for applying a selected one of the one or more transformation operations on the first graphical object for creating the second graphical object, the second graphical object having one or more properties that are different from the one or more properties of the first graphical object.

53. (Canceled)

54. (Previously Presented)   A system comprising:

input means for inputting data to a modeling application;

a display device for displaying an executable block diagram representing a dynamic system, the executable block diagram containing a first graphical object having one or more properties;

receiving means for receiving an input for selecting the first graphical object in the executable block diagram; and

an electronic device including memory for storing computer program instructions and data, and a processor for executing the stored computer program instructions, the computer program instructions including:

instructions for displaying a list of one or more of transformation operations performable on the first graphical object, and

instructions for, based on a selected transformation operation in the list, executing a copy and morph operation on the first graphical object to create a second graphical object for the executable block diagram, the second graphical object having one or more properties that are different from the one or more properties of the first graphical object.

55. (Previously Presented)   A system comprising:

input means for inputting data to a diagramming application;

a display device for displaying an executable block diagram representing a dynamic system, the block diagram containing a graphical object having one or more properties;

receiving means for receiving an input for selecting the graphical object in the executable block diagram; and

an electronic device including memory for storing computer program instructions and data, and a processor for executing the stored computer program instructions, the computer program instructions including:

    instructions for displaying a list of one or more of transformation operations performable on the selected graphical object, and

    instructions for, based on a selected transformation operation in the list, executing a morph operation on the selected graphical object to change one or more properties of the selected graphical object for the executable block diagram.

56. (New)   The method of claim 1, further comprising:

    caching information related to the first graphical object prior to displaying the list of one or more transformation operations performable on the first graphical object.

57. (New)   The method of claim 1, further comprising:

    receiving an input selecting a position to place the second graphical object on the executable block diagram; and

    placing the second graphical object on the selected position.